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Subject: Fw: New Orleans Times Picayune coverage of Bayou Corne (nice graphic of the salt dome cavern)
Date: 08/20/2012 03:30 PM

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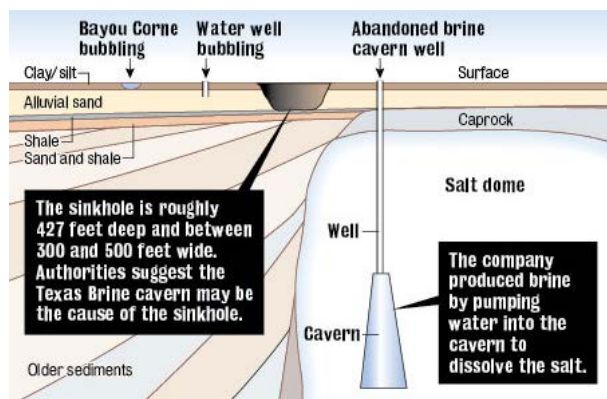
Sinkhole neighbors don't know when they might be allowed back home

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[yv8wACQAAAAAAAAAUmljaGFyZCUBaG9tcHNvbiwgVGhlIFRpbWVzLVBPY2F5dW5l](#) By [Richard Thompson, The Times-Picayune](#)

Bayou Corne — Given the recent appearance of a [massive sinkhole](#) near his new Assumption Parish home, Greg Denton picked the wrong time to move. Weeks after he and his wife, Carmen, bought their new place on Sauce Piquante Lane, in late May, many of their neighbors started reporting feeling tremors and seeing gas bubbles rising up in nearby bayous. “I didn’t know nothing about it at all when we first came down here. I didn’t have a clue,” said Denton, 56, about two months after he relocated from Missouri. “Every day is a new experience, I’m telling you.”



The same has been true for state and local officials, who have spent months investigating the puzzling activity toward the back swamps along the west bank of Bayou Lafourche. The tremors became more frequent, from a



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dozen a day to hundreds by mid-July, with some residents reporting minor property damage. Then, one day in early August, the shaking just stopped.

It was soon followed the sinkhole, which has nearly doubled in size over the past two weeks, swallowing swamp and cypress trees in the process — and in recent days, nearly adding two cleanup workers to the list.

Sinkholes can happen when the rock below the land, like limestone or salt beds, is undermined, causing the top layer to collapse. At Bayou Corne, the void was filled by water that seeped in from the surrounding area. As it settled, a layer of swampy vegetation covered the top.

Salt domes used by industry

Before then, state scientists and others speculated the gas that continued to bubble up might be coming from the nearby Napoleonville salt dome, a 3-mile-long underground complex of caverns. Such salt domes are used by industry almost as underground tanks for storing hydrocarbons like natural gas and butane. They also sometimes provide salt for industrial purposes. The nation's oil reserve is stored in the Strategic Petroleum Reserve, a network of four sites with caverns created in salt domes along the Gulf Coast.

Though officials have yet to determine fault, some have suggested that a cavern close to the sinkhole, which was operated by Houston-based Texas Brine Co. for nearly two decades before being capped and abandoned last year, could be to blame.

The sinkhole is located along an edge of the salt dome, rather than directly atop it, said Sonny Cranch, a spokesman for the company. Cranch said the hole is about 427 feet deep, while the top of the salt dome is about 700 feet below the ground. The cavern stretches another 2,800 feet below that.



Louisiana Department of Natural Resources

The sinkhole near Bayou Corne in Assumption Parish has nearly doubled in size since this photo was taken on Aug. 3.

Local officials ordered a mandatory evacuation June 19 for a section of homes closest to the center of the sinkhole, about a half-mile away. As of last week, Assumption Parish Police Jury President Martin Triche said about half of the 150 households, or about 350 residents, had left.

It's unclear how long they'll have to stay away. To get a better idea about what has transformed a football field's worth of swamp into slurry in Assumption Parish, the state Department of Natural Resources last week signed off on a permit for Texas Brine to drill an exploratory well into the abandoned brine cavern nearby.

State officials hope that will shed light on the cavern's structural integrity, its condition and what it contains, said Patrick Courreges, a spokesman for the Louisiana Department of Natural Resources.

No foreseeable timeline

The company began work on the effort Wednesday. But under the best of circumstances, drilling the relief well could take about 40 days, according to Triche.

"And then, who knows after that?" Triche said. "So we wish we could apprise the people of kind of an exact timeline, but that's difficult to do at this point."

Waiting without much information has left residents with a myriad of concerns. Most immediately, some fear for their safety, but many are also worried about the lingering impact that the incident could have on property values.

"They're very frustrated, very stressed," Triche said. "They're just concerned of the unknown and the development of that kind of sinkhole in that small of a period is very worrisome, so the stress level is very high, and rightfully so."

Workers have narrow escape

During cleanup activities Thursday morning, the sinkhole suddenly grew by 50 feet. Two cleanup workers in a boat had to be rescued by an airboat; the small craft they had been in was sucked into the sinkhole.

Salt domes dot the landscape of south Louisiana, with Avery Island, home of Tabasco sauce, easily the best known. Dating back millions of years, the domes were formed as salt deposits buried deep underground rose up through denser sediments, altering the surface topography.

For more than a half-century, the petrochemical industry has used the huge caverns found in the domes to store hydrocarbons such as methane, butane and propane, which can be easily injected into the underground caves.

"The advantage that salt gives you is that it's more expensive to form that storage facility, but it gives you rapid injection and withdrawal capabilities," said David Dismukes, professor and associate executive director of LSU's Center for Energy Studies.

Dismukes said the Gulf of Mexico region, including places like Bayou Corne, has long been a hotbed for such storage capacity, accounting for about 17 percent of the nation's underground storage capacity in 2005.

Louisiana Department of Environmental Quality officials have also been pressing the operator of a second cavern, Crosstex Energy of Dallas, for an updated risk management plan. Crosstex operates a storage facility about 1,600 feet from the sinkhole that contains nearly a million barrels of butane. The DEQ said its move came "out of an abundance of caution."

On Thursday, state officials said they'd reviewed Crosstex's new plan and concluded that the cavern poses "little to no threat" to nearby residents, noting that the butane stored there is in liquid form, more than a half-mile below the ground, and would require pumping saltwater into it to push it to the surface, DEQ spokesman Rodney Mallett said in a statement.

\$875 weekly for housing

A day later, Texas Brine began issuing financial assistance for residents whose homes are under the evacuation order, contracting with an outside response firm to set up a fund that will distribute a weekly housing allowance of \$875 per household.

That's what Denton, and others, were hoping for.

"We're kind of waiting for them to set up that fund, and then we're probably going to go stay in a hotel, just to be on the safe side," Denton said Wednesday.

On Friday, state officials called on the company to retroactively reimburse residents who had already left. The company hasn't said whether it will do that.

Steve Horton, an earthquake scientist at the University of Memphis who worked with the U.S. Geological Survey to conduct seismic monitoring in the community, said residents had reported "feeling shaking, even to the point that there was some minor damage" as early as June 8, correlating with when the gas bubbles were reported.

By mid-July, Horton said, tremors occurred 10 to 20 times a day, and around July 24, the rate had "increased sharply and significantly," with hundreds per day. They stopped Aug. 2, and the next morning, the sinkhole was discovered.

That was enough for Preston Guilbeau, 66, and his wife, Vickie, who left their home of more than a decade and headed for Lake Charles.

By midweek, the pair stopped by to pick up their mail; Vickie Guilbeau described the neighborhood as a "ghost town."

"It puts all of our lives in danger," she said. "It messes up the prices on the values on our properties, which will go down the pot."

Her husband agreed, speculating that the ordeal would cause property values to plummet. "I've got a lot of money tied up over there," he said, gesturing toward his home. "How in the heck am I going to get my money back on that?"

A few miles away, in Pierre Part, Harold Aucoin, 74, picked up a bag of shrimp along Bayou Drive, and said that if he were forced to leave, he would.

"Just got to wait and pray, I guess," Aucoin said.

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